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ABSTRACT

The concept of student-institution fit is described and linked to a conceptual framework that emphasizes the interactive relationship between student and campus environment. Attention is also directed to how enrollment managers can utilize a systematic approach to optimize levels of fit between student and campus with a goal to recruiting and retaining students who will eventually become satisfied graduates. In describing student-institution fit, three important sets of factors need to be examined: (1) student characteristics; (2) institutional characteristics; and (3) the effects of interaction between student and institution (e.g., physical, cognitive, and affective interactions). An ecological framework for understanding fit is discussed that is related to the person-environment interaction theoretical framework. The interactionist perspective would suggest that the student and the campus shape each other. A model for optimizing student-institution fit includes five action steps: (1) assessing entering student characteristics; (2) assessing the characteristics of the campus environment; (3) identifying levels of fit; (4) evaluating levels of fit; and (5) designing environmental interventions. (SW)

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STUDENT-INSTITUTION FIT
AN ECOLOGICAL PERSPECTIVE

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STUDENT-INSTITUTION FIT

AN ECOLOGICAL PERSPECTIVE

Many higher education administrators have come to believe that the effective management of student enrollments requires a systematic and integrated approach to both the recruitment and retention of students. The effective management of enrollments necessarily involves a comprehensive, institution-wide process beginning at the point of initial inquiry by a prospective student and continuing through to that student's graduation and even beyond as alumni support is solicited for the institution's enrollment management efforts.

An institution's enrollment management efforts thus encompass a holistic process which brings together diverseinstitutional offices and functions. In part, some of these functions include the marketing of the institution, the recruitment and admission of students, financial aid packaging, orientation and academic advising programs, student retention programs designed to retain selected "high risk" groups, career planning and placement services, institutional research and program evaluation.

Effective coordination and integration of these functions require that enrollment managers examine a broad theoretical and research foundation. This conceptual foundation encompasses, in

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part, such areas as college choice (Chapman, 1981; Jackson, 1982; Manski & Wise, 1983), the demand for higher education (Adkins, 1975; Francis, 1984), pricing and its relationship to financial aid (Henry, 1980; Jensen, 1983; Litten, 1986), the marketing of nonprofit organizations (Kotler, 1975), student retention (Bean, 1986; Tinto, 1975), the impact of higher education on students (Astin, 1977; Bowen, 1977; Feldman & Newcomb, 1969; Pace, 1979), and the process of matching students and institutions which is also referred to as student-institution fit (Williams, 1984, 1986a, 1986b).

The intent of this paper is to focus specifically on the concept known as student-institution fit. The research literature suggests that the degree of match, or fit, between student and institution can lead to increased student satisfaction and academic achievement which are important goals of any institution's recruitment and retention effort. Specifically, this paper will clarify the concept of student-institution fit and will link it to a conceptual framework which places importance on the interactive relationship between student and campus environment. This paper also addresses how enrollment managers can utilize a systematic approach to optimize levels of fit between student and campus with a goal to recruit and retain students who will eventually become satisfied graduates of the institution.

Clarifying student-institution fit. A body of theoretical knowledge suggests that the degree of congruency, or fit, between a variety of student characteristics and the ability of the institution to respond adequately to those charactertistics could lead to increased student satisfaction, academic achievement, and personal growth (Huebner, 1980; Lenning, Sauer, & Beal, 1980; Walsh, 1978). These conditions, which are likely to lead to increased student retention, should motivate enrollment managers to examine carefully the nature of the fit between student and institution.

In describing student-institution fit, one must examine three important sets of factors: a) student characteristics, b) institutional characteristics, and c) the effects of the interaction between student and institution. Student characteristics include the personal attributes, needs, abilities, expectations, interests, and values brought to the campus. Institutional characteristics include a complex array of physical, academic, social and even psychological attributes that make up the campus environment. Finally, the third component of fit includes the physical, cognitive, and affective interactions between students and institution. When students' needs, goals, interests, and expectations are adequately met by various campus conditions, then, from the student's perspective, a high degree of fit exists. Likewise, when student academic and social

abilities mesh well with institutional requirements, then, from the institutional perspective, fit between student and institution also exists.

Several authors have written about the concept of matching students with institutions of higher education in an effort to sensitize campus leaders to issues surrounding student-institution fit. For example, Creager (1968) discussed fit by stating that the principal objective of matching students with colleges is to maximize educational objectives related to student persistence in college, motivation for graduate school, realistic career choice, high academic performance, and even mental health (p. 312). In another study, half of college dropouts surveyed reported being dissatisfied generally with the college environment and the rest felt that the institution was not helping them with both future career plans and personal development (Panos & Astin, 1967).

Painter and Painter (1982) reported that college dropouts clearly registered discomfort of some type and revealed "feelings of being in the wrong place" (p. 87). The authors posit that "the right choice will match the student with the college that fits personal abilities and personality, with understandable consequences of feelings of gratification. The wrong choice will cause frustration and angry blame-fixing by the student and college" (p. 86). They also report that factors resulting in a

mismatch between students and their institution include: a) lack of fit between students' prior expectations regarding campus life in general and what they, in fact, experience at the institution, b) few opportunities to develop warm friendships, especially with peers of similar background, c) lack of fit between student ability and academic standards of the college that leads to student reported low grades, professorial contempt, and coursework that is hard to understand, and finally, d) the unavailability of specific career-related courses, adequate recreational facilities, and student support services in general (pp. 88-92). Pace (1980) provided generalizations especially helpful in understanding student-institution fit: a) students entering college with highly unrealistic expectations about the environment are more likely to have problems adjusting and are more likely to withdraw than are students who enter with realistic goals and expectations, b) students who perceive their campus environment to be friendly, congenial, and supportive are more likely to be satisfied with the college, c) student interaction with the scholastic press of the institution is directly related to goals for graduate study, and d) when congruency, or fit, exists between student personality characteristics and institutional characteristics, student objectives are more likely to be achieved (pp. 91-92).

A view long held by key enrollment planners on the campus regarding student-institution fit has usually considered only

student characteristics. In the past, in order to attract new students who seemed to match well with the institution, much attention has been focused on identifying selected demographic variables of students who persist to graduation. These variables often times include high school grade point average, national test scores, parents' income and occupations and location of home residence. These characteristics are then assumed to be the most significant part of a formula for successful student retention. A careful analysis of this traditional approach reveals that it has not met with overwhelming success. The average graduation rates after even five years in an institution range from only 53% at four-year public institutions to 63% at four-year, private independent institutions (Beal & Noel, 1980). These retention statistics reveal that many colleges and universities are losing large numbers of students--even after these students have been painstakingly identified, recruited, admitted and enrolled. Although this approach has served higher education well in years past when applicant pools were more than adequate to maintain enrollment needs, to continue this approach to matching student with institution will not serve higher education well either in the current era or in the years ahead.

An ecological framework for understanding fit. A much broader approach to understanding the nature of student-institution fit is now needed. This new perspective would necessarily include not only the traditional focus on student and institutional characteristics, but also the effects of the

interaction of student with the campus environment. Understanding this latter element--how students interact with the institution and how this interaction is directly linked to student retention--is an essential component of student-institution fit that can not be overlooked.

This broadened perspective is directly related to a theoretical framework known as person-environment interaction. Even though the application of this framework to higher education has been the focus of attention recently in the professional literature, the concept itself is not new. Theorists and researchers, especially from psychology and sociology, as early as 1924, have explored the relationships between individuals and their environments. Kantor (1924), Lewin (1936), and Murray (1938) each were early contributors to the theoretical foundation for interactionism. The importance in understanding factors contributing to person-environment interaction in higher education lies in the basic assumption that all aspects of human behavior cannot and do not occur in a vacuum.

For example, not only do students influence the campus environment when they bring their own physical, social and psychological characteristics onto campus, but the campus also will have impact and influence on their behavior. Thus, the interactionist perspective would suggest that the student and the campus shape each other. Those interested in a survey of the

interactionist theoretical foundation are urged to read Walsh (1973, 1975, 1978), Huebner (1980), and Williams (1984). Each author provides reviews of interactionist theories that hold particular value for enrollment management.

Across the nation an expanding cohort of higher education researchers is carefully examining various interaction effects of the campus environment with students, faculty and staff. In fact, it seems that a new field of research specialization is evolving. This new research agenda has been identified with the "campus ecology" movement in higher education. James Banning, a frequent contributor to the campus ecology literature and Editor of **The Campus Ecologist**, a quarterly newsletter, states that the campus ecology movement is part of a broader movement occurring in psychology and in health-related fields. He reports that researchers are seemingly shifting away from a sole focus on the individual toward an examination of forces in the larger community that promote health and well-being (Winkler, 1985, p. 11).

As was stated earlier, many students who are initially attracted to a particular campus and in fact enroll, often end up leaving while expressing varying degrees of dissatisfaction with the campus environment. Again, these are frequently the same students whose personal and family characteristics matched well with campus predictors for academic success at the institution.

These apparent mismatches are usually manifested through academic, social and personal adjustment problems that students experience on the campus. Unfortunately, students with adjustment or other types of problems have long been viewed as being deficient in some manner (Banning & McKinley, 1980). This perspective has evolved from a traditional reliance on a counseling or medical model that views students as clients or patients. This approach has turned attention away from both the campus environment and the interactive relationship between students and their campus. When students are viewed as clients, campus environments are rarely seen as deficient or in need of intervention (p. 40). If institutions always assume that dissatisfied students are deficient in some way, institutional efforts may at times be aimed at helping the student adjust or accommodate to a deficient campus environment (Banning & Kaiser, 1974).

Campus enrollment planners should be careful, however, not to accept that every problem that students experience is directly a result of some flaw in the campus environment. With careful assessment, many student problems likely can be linked to their campus environment; but unless a significant segment of the student body experiences the problem, then one should not be overly hasty in deciding to alter the environment significantly.

As was stated earlier, several theoretically-linked models

exist for explaining the interactionist effects between student and campus. Each model, however, conceptualizes this interaction and its effect on behavior in different ways. For example, some models emphasize the effect of the environment on behavior almost to the exclusion of the person (Barker, 1968; Clark & Trow, 1966; Moos, 1974); whereas, other models tend to focus primarily on the role of the individual in person-environment interaction (Holland, 1973; Pervin, 1968). It is not the intent of this paper to thoroughly review these models; however, an example of one of these frameworks which can assist enrollment managers will be briefly reviewed.

The Person-Environment Transactional Approach. Pervin (1968) believes environments exist for each person that tend to match the individual's perception of his or her self. Thus, when individuals are in environments congruent with their self-perceived personality characteristics, higher performance, greater satisfaction, and reduced discomfort and stress will occur. He bases his approach on certain key assumptions: first, that individuals find major discrepancies between their perceived actual and ideal selves to be unpleasant and painful; and second, that people are positively attracted to environments that can move them toward their ideal selves. Conversely, individuals are negatively disposed toward environmental factors that move them away from their ideal selves (Walsh, 1978, p. 12).

Pervin's approach would suggest that institutions should encourage both prospective and current students to consider how they view both their actual and ideal selves on a number of different dimensions (i.e., social, physical, intellectual, etc.) as well as their perceptions and expectations of the campus environment. An important task for enrollment managers would be to convey effectively to prospective and current students the potential of the campus environment for facilitating positive movement along these dimensions towards their ideal selves. However, the environmental assessment undertaken may reveal that the campus does not hold that potential for many students. If that happens, institutional leaders would need to determine in what ways to best modify the environment in order to facilitate student development.

Optimizing student-institution fit. This next section links the concept of fit to enrollment management by presenting a process model for operationalizing the conceptual constructs such that levels of fit between student and campus can be more optimally managed. This model includes five action steps: assessing entering student characteristics, assessing the characteristics of the campus environment, identifying levels of fit, evaluating levels of fit, and designing environmental interventions as needed. The model can serve as an important starting point for any campus enrollment management team in that tasks are outlined that together facilitate not only the

assessment of current levels of fit between student and campus, but also the design of strategies for increasing or optimizing levels of fit. Each step in the model is briefly described below. For a more detailed description of these steps see Williams (1986a).

(1) Assessing Student Characteristics. The first step in the process model requires the institution to systematically collect a wide variety of demographic and perceptual data on all students at the time of their matriculation. This would include new freshmen as well as transfer students.

The enrollment management team should establish the types of data to be collected. However, it is best to collect as much information on each student as possible. Several types of demographic data can be compiled by accessing campus admission records. Perceptual data about student attitudes, values, and expectations can be collected either with local instruments designed by the institution or with nationally standardized instruments. Traditionally, much demographic data have been routinely collected on new students, but very little seems to be done to assess student attitudes, values, and expectations at the time of entry. For example, an enrollment management team should know what goals and expectations new students bring with them to the campus in order to ascertain whether or not these goals and expectations are realistic ones that can reasonably be met within

the campus environment. A major source of new student dissatisfaction with a campus often arises as a result of unfulfillled expectations.

(2) Assessing Environmental Characteristics. Just as it is important for enrollment managers to fully understand the many characteristics that make up the student population, they must also clearly understand their own campus environment if they wish to assess the impact it has on students.

In recent years researchers have proposed varying ways of conceptualizing and defining campus environments (Astin, 1968; Banning & McKinley, 1980; Blocher, 1974, 1978; Moos, 1974). Even though each approach is different, each in some way focuses on four broad domains that comprise the campus environment: an academic-intellectual domain, a physical domain, a social-cultural domain, and a psychological domain. Although it is possible to characterize factors contributing to each of the four domains, one must remember that overlap does exist. For example, the lighting of campus buildings and walkways is obviously a part of the physical environment; however, the absence of adequate lighting (either real or perceived) could also affect the psychological, academic and social environments because poor lighting could create in students a fear for their personal safety, which, in turn, could reduce student evening use of a library, reduce night class enrollments, or reduce participation

in evening social events.

A wide variety of tools is available for assessing the campus environment. Huebner (1980) reviews demographic, perceptual, behavioral and multimethod approaches. The demographic method is objective and descriptive and focuses on variables that are fairly easy to measure: physical size of campus buildings, numbers of faculty and staff, ratio of students to faculty, and size of library holdings. Perceptual tools are the best developed and most widely used of the four types. These tools collect data about individual attitudes, values and beliefs. The behavioral approach to assessment measures specific, observable behaviors of students, faculty or others on the campus. The fourth assessment approach combines two or more of the previous three methods in an effort to collect a wide variety of data in a single assessment.

(3) Identifying the Fit between Student and Institution. This third step in the model includes investigating how the environment has both positively and negatively affected the student and how student involvement in the institution has influenced the environment. The process of identifying fit between student and campus includes recording where apparent matches and mismatches have occurred.

To begin this process, it is perhaps easier to identify

where mismatches have occurred. Often these mismatches become apparent when students experience academic, social and other personal adjustment problems while enrolled at the institution. It is important that a reporting system be established that will channel information from all sectors of the campus regarding the nature and frequency of problems experienced by students to one central location (such as the chief enrollment manager or chief institutional researcher) for careful analysis.

Student perceptions of the campus environment thus need to be collected on a regular basis, and, as was noted earlier, several perceptual and behavioral assessment tools are available. A special focus should be directed toward determining the environmental referants that students indicate most influence their views.

Thus far this discussion has focused on the need to identify mismatches and sources of student dissatisfaction with the campus environment. It is just as important for an enrollment management team to identify what students seem to enjoy most about the campus and those environmental factors that appear to match well with student needs, goals, interests, and expectations. The campus certainly should be most interested in surveying student persisters. Alumni who are responsive to requests for financial support, as well as those who volunteer their services in the institution's recruitment and placement

activities, should also be regularly contacted for their perceptions of the campus environment.

(4) Evaluating Levels of Fit. The primary objective of this step is to enable the enrollment management team or other institutional officers to make important decisions regarding whether or not to proceed with a plan for an intervention that would reduce mismatches between student and campus. An assumption underlying this step is that not all mismatches can or even should be corrected through special interventions. It is probable that some mismatches may involve variables totally out of the control of the institution. After careful evaluation, the institution may also find that a potential solution, or intervention, for a mismatch between one group of students and the campus may in itself lead to a more serious problem with another group of students.

The evaluation process begins with the enrollment management team devising a plan for systematically evaluating data. For example, a procedure could be established whereby recorded matches and mismatches are each placed at some point on a continuum that indicates type and intensity of impact or effect on the institution. This continuum could range from "very negative impact" to "very positive impact." In assigning match-mismatch incidents to the continuum, the enrollment team needs to consider a variety of factors that effect both the direction and

the intensity of the impact.

(5) Designing Environmental Interventions. If a decision is made to move forward with specific programs aimed at effectively reducing levels of mismatches then the fifth and final step in the model is taken. In this step an enrollment team considers as valid not only those interventions that focus on assisting students to adjust to or to cope with the campus environment but also interventions that focus on adapting or changing the campus environment to meet the needs, interests, goals and expectations of students.

A variety of interactionist process models are available that specifically focus on environmental intervention. These can be especially valuable to enrollment management teams as they plan and implement interventions at three levels: focusing on individual students (life-space level), focusing on selected groups of students (micro-level), and focusing campuswide (macro-level). Readers desiring more information about these models should review Huebner and Corrazzini, 1976; Kaiser, 1978; Miller and Prince, 1976; and Morrill and others, 1980.

Conclusion. The purpose of this paper has been to introduce and clarify for enrollment managers in higher education important concepts linking student-institution fit to an ecological perspective which focuses primary attention on the interactive

effects between the campus environment and the student. A research- and theory-base exists for understanding the complex ways in which students interact with their institutions. This research provides evidence that congruency, or fit, between students and their campuses can result in increased satisfaction, achievement and retention.

Enrollment managers must recognize the need to design recruitment and retention programs that consider the student as well as the campus environment. A process model for assessing levels of fit between both prospective and current students and the campus has been described. The model suggests that enrollment managers develop a systematic and comprehensive approach to environmental evaluation and that they be prepared to alter the campus environment whenever and wherever necessary.

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